REMARKS

In response to the Final Office Action dated September 25, 2007, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance. Prior to entry of this response, Claims 1-21 were pending in the application, of which Claims 1, 6, and 13 are independent. In the Final Office Action dated September 25, 2007, Claims 1-21 were rejected under 35 U.S.C. § 103(a). Following this response, Claims 1-21 remain in this application. Applicants hereby address the Examiner's rejections in turn.

I. Interview Summary

Applicants thank Examiner Belani for the courtesy of a telephone interview on December 18, 2007, requested by the undersigned to discuss the rejection of the current claims under 35 U.S.C. § 103. During the interview, Applicants asserted that the cited references do not anticipate or render obvious the claims as currently amended. The Examiner stated that the amendments overcome the cited references, but that an updated search would be necessary. No agreement was reached regarding patentability.

II.   Rejection of Claims 1, 3-4, 6-7, 12-16, and 21 Under 35 U.S.C. § 103(a)

In the Final Office Action dated September 25, 2007, the Examiner rejected

Claims 1, 3-4, 6-7, 12-16, and 21 under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent No. 5,936,963 ("Saussy") in view of U.S. Pat. Pub. No. 2003/0154313

("Banerjee"). Claims 1, 6, and 13 have been amended, and Applicants respectfully

submit that the amendments overcome this rejection and add no new matter.

Amended Claim 1 is patentably distinguishable over the cited art for at least the

reason that it recites, for example, "wherein utilizing the aggregated Ethernet

connections to increase the data transfer bandwidths comprises using an aggregator

device in communication with the Ethernet network and a plurality of asymmetric

Ethernet connections, wherein using the aggregator device comprises using the

aggregator device to aggregate the plurality of asymmetric Ethernet connections to

provide a resultant asymmetric Ethernet connection at a resultant data transfer

bandwidth between the remote Ethernet network and the point of service." Amended

Claims 6 and 13 each include a similar recitation. Support for these amendments can

be found in the specification at least on page 5, lines 10-21.

Consistent with exemplary embodiments described in Applicant's specification,,

an asymmetric Ethernet service may utilize aggregated Ethernet connections to

increase bandwidths in data transfer directions while maintaining asymmetry. (See

specification page 5, lines 10-12.) For example, an aggregator device may be

positioned between a Digital Subscriber Line Access Multiplexer (DSLAM) containing

modems and a downstream link to an Ethernet network. (See specification page 5,

lines 12-14.) The aggregator device may aggregate a first Asymmetric Digital

Subscriber Line (ADSL) modem set communications that are in communication with a second ADSL modem set. (*See* specification page 5, lines 15-16.) For example, the first ADSL modem set may then be aggregated by the aggregator device located between the first ADSL modem set and a point of service. (*See* specification page 5, lines 16-18.) Thus, a single Ethernet link may benefit from multiple ADSL modem connection bandwidths to increase the effective asymmetric Ethernet service bandwidth being provided to a subscriber. (*See* specification page 5, lines 18-20.)

In contrast, and as stated by the Examiner, *Saussy* does not explicitly disclose an asymmetric Ethernet communication comprising aggregated Ethernet connections to increase data transfer bandwidths while maintaining asymmetry. (*See* Office Action page 4, lines 17-20.) Because *Saussy* at least does not disclose data transfer bandwidth aggregation, *Saussy* cannot disclose an aggregator device aggregating multiple modem bandwidths to form a resultant bandwidth. Consequently, *Saussy* fails to disclose the aforementioned recitation {need to recite explicit claim language here so the Examiner is clear what claim recitation is missing from Saussy} from Claim 1 at least because *Saussy* is silent regarding Ethernet connection aggregation.

Furthermore, *Banerjee* does not overcome *Suassy's* deficiencies. *Banerjee* merely discloses improving a multiprocessor system's network performance, which is limited in physical network interface connections, by using virtual IP addresses. (*See* Abstract, lines 1-4.) *Banerjee*'s multiprocessor system allows multiple processors to transmit network data in parallel. (*See* paragraph [0030], lines 1-3.) In *Banerjee*, multiple channels are aggregated into one channel, or Etherchannel, that is connected to a server. (*See* paragraph [0033], lines 2-4.) *Banerjee's* aggregation at a single point

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may become a bottleneck during high processing activity, and may circumvent increases in symmetric multiprocessing system performance. (*See* paragraph [0035], lines 1-4.) As a result, each process and/or thread in *Banerjee* may use one of a plurality of virtual interfaces including its associated queues and routes to improve performance. (*See* paragraph [0036], lines 1-3.) *Banerjee's* virtual interfaces may be regarded as first-in, first-out buffers into which data being transacted may be stored. (*See* paragraph [0036], lines 3-6.) Accordingly, *Banerjee's* aggregation at a single point does not aggregate multiple communication device bandwidths into a resultant bandwidth. Rather, *Banerjee's* aggregation utilizes distribution methods, employing buffers and storage devices, to transmit data from multiple communication devices at a single bandwidth. Consequently, *Banerjee* cannot disclose an aggregator device aggregating multiple modem bandwidths to form a resultant bandwidth at least because *Banerjee* does not disclose multiple bandwidth aggregation.

Combining *Saussy* with *Banerjee* would not have led to the claimed subject matter because *Saussy* and *Banerjee*, either individually or in combination, at least do not disclose "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service," as recited by amended Claim 1. Amended Claims 6 and 13 each include a similar recitation. Accordingly, independent Claims 1, 6, and 13 are each

patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of Claims 1, 6, and 13.

Dependent Claims 3-4, 7, 12, 14-16, and 21 are also allowable at least for the reasons described above regarding independent Claims 1, 6, and 13, and by virtue of their respective dependencies upon independent Claims 1, 6, and 13. Accordingly, Applicants respectfully request withdrawal of this rejection of dependent Claims 3-4, 7, 12, 14-16, and 21.

III.   Rejection of Claims 2, 11, and 20 Under 35 U.S.C. § 103(a)

In the Final Office Action, the Examiner rejected Claims 2, 11, and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view *Banerjee* further in view of U.S. Pat. Pub. No. 2003/0198217 ("*Redfern*"). Dependent Claim 2 is patentably distinguishable over the cited art for at least the reason that it includes, due to its dependency on amended independent Claim 1, "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service." Dependent Claims 11 and 20 contain a similar recitation due to their respective dependencies on amended independent Claims 1 and 13.

In contrast, and as stated by the Examiner, *Saussy* does not explicitly disclose an asymmetric Ethernet communication comprising aggregated Ethernet connections to increase data transfer bandwidths while maintaining asymmetry. (*See* Office Action page 4, lines 17-20.) Furthermore, *Banerjee* does not overcome *Suassy's* deficiencies for reasons stated above.

In addition, *Redfern* does not overcome *Saussy's* and *Banerjee's* deficiencies. *Redfern* merely discloses extending upstream data transmission in a band having a lowest frequency f_0, by an end user terminal. (*See* paragraph [0010], lines 1-4.) In *Redfern*, an upstream data transmission target rate is provided. (*See* paragraph [0010], lines 6-8.) Like *Saussy* and *Banerjee*, *Redfern* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Redfern* discloses utilizing frequency and power levels to extend upstream data transmission and is silent regarding aggregated Ethernet connections. Because *Redfern* at least does not disclose the aggregation of data transfer bandwidths, *Redfern* cannot disclose an aggregator device aggregating multiple modem bandwidths so as to form a resultant bandwidth Consequently, *Redfern* fails to disclose the aforementioned recitation from Claim 2 at least because *Redfern* is silent regarding Ethernet connection aggregation.

Combining *Saussy* with *Banerjee and Redfern* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, and *Redfern*, either individually or in combination, at least do not disclose "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric

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Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service," as included in independent claim 1, from which dependent claim 2 depends. Dependent Claims 11 and 20 each includes a similar recitation due to their respective dependencies on independent Claims 6 and 13. Accordingly, dependent Claims 2, 11, and 20 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 2, 11, and 20.

IV.   Rejection of Claims 5, 8, and 17 Under 35 U.S.C. § 103(a)

In the Final Office Action, the Examiner rejected Claims 5, 8, and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee* further in view of U.S. Patent No. 6,785,265 ("*White*"). Dependent Claim 5 is patentably distinguishable over the cited art for at least the reason that it includes, due to its dependency on amended independent Claim 1, "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service." Dependent

Claims 8 and 17 each includes a similar recitation due to their respective dependencies on amended independent Claims 6 and 13.

In contrast, and as stated by the Examiner, *Saussy* does not explicitly disclose an asymmetric Ethernet communication comprising aggregated Ethernet connections to increase data transfer bandwidths while maintaining asymmetry. (*See* Office Action page 4, lines 17-20.) Furthermore, *Banerjee* does not overcome *Suassy's* deficiencies for reasons stated above.

In addition, *White* does not overcome *Saussy's and Banerjee's* deficiencies. *White* merely discloses a DSL access network in which an Asynchronous Transfer Mode (ATM) layer is removed from two interfaces and replaced with Ethernet. (*See* col. 1, line 66-col. 2, line 1.) In *White*, the ATM is replaced with Ethernet at a media access control (MAC) layer at the following interfaces: (a) between the customer premises equipment (CPE) and a remote Ethernet device (RED) terminal, and (b) between the RED terminal and a packet data core network. (*See* col. 2, lines 2-6.) In *White*, ATM's are replaced with Ethernet at various interfaces. Like *Saussy* and *Banerjee*, *White* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *White* discloses replacing ATM's with Ethernet and is silent regarding aggregated Ethernet connections. Because *White* at least does not disclose data transfer bandwidth aggregation, *White* cannot disclose an aggregator device aggregating multiple modem bandwidths so as to form a resultant bandwidth. Consequently, *White* fails to disclose the aforementioned recitation from Claim 5 at least because *White* is silent regarding Ethernet connection aggregation.

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Combining *Saussy* with *Banerjee* and *White* would not have led to the claimed subject matter because *Saussy, Banerjee,* and *White,* either individually or in combination, at least do not disclose "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service," as included in dependent Claim 5. Dependent Claims 8 and 17 each includes a similar recitation due to their respective dependencies on amended independent Claims 6 and 13. Accordingly, dependent Claims 5, 8, and 17 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 5, 8, and 17.

V.   Rejection of Claims 9 and 18 Under 35 U.S.C. § 103(a)

In the Final Office Action, the Examiner rejected Claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *White* and *Banerjee* further in view of U.S. Patent No. 6,243,394 ("*Deng*"). Dependent Claim 9 is patentably distinguishable over the cited art for at least for the reason that it includes, due to its dependency on amended independent Claim 6, "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of

asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service." Dependent Claim 18 contains a similar recitation due to its dependency on amended independent Claim 13.

In contrast, and as stated by the Examiner, *Saussy* does not explicitly disclose an asymmetric Ethernet communication comprising aggregated Ethernet connections to increase data transfer bandwidths while maintaining asymmetry. (*See* Office Action page 4, lines 17-20.) Furthermore, *Banerjee* and *White* do not overcome *Suassy's* deficiencies for reasons state above.

Moreover, *Deng* does not overcome *Saussy's*, *Banerjee's*, and *White's* deficiencies. *Deng* merely discloses controlling data communication between a local area network (LAN) and a remote device through an ADSL channel. (*See* col. 1, line 66-col. 2, line 2.) A protocol converter in *Deng* converts a data packet protocol transmitted from the LAN through the ADSL channel from a LAN protocol to an ADSL protocol. (*See* col. 2, lines 5-8.) In addition, *Deng's* protocol converter converts the data packet protocol transmitted from the ADSL through the LAN channel from the ADSL protocol to the LAN protocol. (*See* col. 2, lines 8-10.) Like *Saussy*, *Banerjee*, and *White*, *Deng* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Deng* discloses controlling communication between a LAN and a remote device and is silent regarding aggregated Ethernet connections. Because *Deng* at least does not disclose the

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aggregation of data transfer bandwidths, *Deng* cannot disclose an aggregator device aggregating multiple modem bandwidths so as to form a resultant bandwidth. Consequently, *Deng* fails to disclose the aforementioned recitation from Claim 6 at least because *Deng* is silent regarding Ethernet connection aggregation.

Combining *Saussy* with *Banerjee*, *White*, and *Deng* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *White*, and *Deng*, either individually or in combination, at least do not disclose "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service," as included in dependent Claim 9. Claim 18 includes a similar recitation due to its dependency on amended independent Claim 13. Accordingly, dependent Claims 9 and 18 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 9 and 18.

VI.   Rejection of Claims 10 and 19 Under 35 U.S.C. § 103(a)

In the Final Office Action, the Examiner rejected Claims 10 and 19 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee*, *White*, and *Deng* further in view of U.S. Patent No. 6,061,357 ("*Olshansky*"). Dependent Claim 10 is patentably distinguishable over the cited art for at least for the reason that it includes,

due to its dependency on amended independent Claim 6, "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service." Dependent Claim 19 contains a similar recitation due to its dependency on amended independent Claim 13.

In contrast, and as stated by the Examiner, *Saussy* does not explicitly disclose an asymmetric Ethernet communication comprising aggregated Ethernet connections to increase data transfer bandwidths while maintaining asymmetry. (*See* Office Action page 4, lines 17-20.) Furthermore, *Banerjee, White,* and *Deng* do not overcome *Suassy's* deficiencies for reasons stated above.

Finally, *Olshansky* does not overcome *Saussy's, Banerjee's, White's*, and *Deng's* deficiencies. *Olshansky* merely discloses an Ethernet to ADSL adapter for controlling data communication between an Ethernet port and an ADSL modem connected to an ADSL channel. (*See* col. 1, line 66-col. 2, line 2.) *Olshansky's* adapter comprises: i) a first buffer for storing data packets received at the Ethernet port; ii) means for transmitting the data packets from the first buffer to the ADSL modem at a first ADSL transmission rate; and iii) means for transmitting data packets received from the ADSL modem to the Ethernet port at a second ADSL transmission rate. (*See* col. 2, lines 2-8.) Like *Saussy, Banerjee, White*, and *Deng, Olshansky* does not disclose utilizing

aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Olshansky* discloses controlling communication between an Ethernet port and ADSL modem and is silent regarding aggregated Ethernet connections. Because *Olshansky* at least does not disclose the aggregation of data transfer bandwidths, *Olshansky* can not disclose an aggregator device aggregating multiple modem bandwidths so as to form a resultant bandwidth. Consequently, *Olshansky* fails to disclose the aforementioned recitation from Claim 10 at least because *Olshansky* is silent regarding Ethernet connection aggregation.

Combining *Saussy* with *Banerjee*, *White*, *Deng*, and *Olshansky* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *White*, *Deng*, and *Olshansky*, either individually or in combination, at least do not disclose "wherein utilizing the aggregated Ethernet connections to increase the data transfer bandwidths comprises using an aggregator device in communication with the Ethernet network and a plurality of asymmetric Ethernet connections, wherein using the aggregator device comprises using the aggregator device to aggregate the plurality of asymmetric Ethernet connections to provide a resultant asymmetric Ethernet connection at a resultant data transfer bandwidth between the remote Ethernet network and the point of service," as included in dependent Claim 10. Dependent Claim 19 contains a similar recitation due to its dependency on amended independent Claim 13. Accordingly, dependent Claims 10 and 19 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 10 and 19.

VII.   Conclusion

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Final Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Final Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability. Furthermore, the Final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Final Office Action.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 13-2725.

Respectfully submitted,
MERCHANT & GOULD P.C.

P.O. Box 2903
Minneapolis, MN 55402-0903
404.954.5066

/D. Kent Stier/

Date: December 21, 2007

D. Kent Stier
Reg. No. 50,640

DKS:mdc

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